III. Management Prescriptions

Seattle's viewpoint parks are located in a variety of physical settings, ranging from developed shoreline locations to more naturalized sites perched at the top of slopes or along hillsides. The twenty four sites evaluated for the Vegetation Management Plan are representative of the range of conditions and maintenance issues at viewpoint parks. Any site that has gone through restoration will require annual maintenance to prevent weed invasion and plant attrition. The established urban forest of many sites can be managed on a 3-5 year cycle with only occasional attention to view pruning and tree removal. To address both immediate maintenance issues, as well as long-term care, Vegetation Management prescriptions address both:

1) initial maintenance strategies for existing conditions to restore views, or renovate derelict and/or disturbed sites
2) post restoration and/or general maintenance schedules for long-term care

Maintenance Strategies for Existing Conditions

The initial analyses of each site determined the range of management tasks needed to abate the current conditions and restore sites to their intended view and use. Though not all sites will require each task, the following list of horticultural practices identifies the key maintenance components:

- tree removal
- tree pruning
- invasive weed removal
- erosion control
- planting
- mulching
- irrigation

To determine the extent of work and organize a course of action, view sites are categorized and grouped according to the horticultural practices and the scope of work required for restoration. The following three maintenance categories classify sites according to their initial management approach:

1) canopy conversion, replacing and restoring vegetation
2) tree pruning and weed removal,
3) slope stability and erosion control.

:

1) Canopy Conversion

Sites identified for canopy conversion meet one or more of the following criteria:

- major tree removal due to previous 'topping' practices, poor health and condition
- understory vegetation is dominated by invasive weed species
- viewshed is obstructed with inappropriate species of tall trees

The canopy conversion category is reserved for sites where more than 70% of the intended SEPA view is obstructed by the adjacent urban forested condition. This management strategy implies renovation of the site, followed by restoration to convert dense canopy to a more genetically suitable planting of trees, shrubs and groundcovers that will not block views over time. The maintenance tasks for canopy conversion sites generally include tree pruning, tree removal, invasive weed elimination, erosion control (where necessary), planting and mulching.

2) Pruning Required and/or Invasive Weed Removal

Viewpoints listed for pruning and weed elimination generally have 80% or greater of the SEPA intended view in tact. Pruning standards will be primarily limited crown thinning. However, where specific tree canopies cause major impacts to the view corridor, crown reduction or selective removal may occur.

Frequently, sites listed for pruning and weed removal have major sections of hillsides invaded with opportunistic weeds. On sites where invasives are well established, preferred species are unable to compete. In most cases, weed eradication will need to occur in several phases of both physical and chemical removal. Replanting may need to be considered where weed invasion is severe and exposed soil results from eradication.

3) Slope Stability and Erosion Control

The management of viewpoint parks is dedicated to protecting and preserving natural resources while enhancing views. Preserving soil and slopes for long term stability is an integral part of all slope restoration work. Sites identified for slope stability and erosion control vary from locations with a minor amount of exposed soil to steep sites with signs of previous mass failures. In either case, planting is critical for all exposed soil locations to prevent surface erosion from occurring.

Sites where mass failures have occurred or where seeps are present require a geotechnical/hydrology specialist to evaluate and determine the appropriate approach in stabilizing the slope. Plants alone do not prevent an unstable slope from potential failure. However, research has shown that vegetation is critical in protecting slopes from surface soil erosion. In addition, planting with a layered canopy of vegetation provides the root structure variety and depth to help stabilize greater depths of soil.

Many of the park sites designated for slope stability and erosion control prescriptions also require tree pruning, tree removal, invasive weed removal and restorative planting depending on existing conditions.

Maintenance Categories for Existing Conditions

CATEGORY	PRIMARY MAINTENANCE TASKS
1 - Canopy Conversion	1. Tree removal 2. Invasive weed removal 3. Erosion control 4. Layered vegetation planting 5. Mulching
2 - Pruning and/or Invasive Weed Removal	1. Tree pruning 2. Invasive weed removal 3. Planting - Zone 2 Transition hedges and groundcovers 4. Mulching
3 - Slope Stability and Erosion Control	1. Tree removal and pruning 2. Invasive weed removal 3. Erosion control 4. Planting – Zone 2 Transition hedges and groundcovers 5. Mulching

The following table assigns each of the parks to the maintenance category required to rehabilitate the site:

Seattle Park Viewpoints
Vegetation Management Plan Study Sites

VIEWPOINT VEGETATION MANAGEMENT CATEGORIES																			
SEPA Viewpoint Park MANAGEMENT & MAINTENANCE CATEGORY	Tree Pruning Needed	Tree Removal Needed	Slope and Erosion Control Required	Invasive Weed Removal Needed	Limited Replanting	Canopy Conver-sion Reveg-etation of Slope	MANAGEMENT ZONES	ZONE 1 - Developed Park Landscape	ZONE 2 - Transition at Crest of Slope	ZONE 3 - Hillside (Native Area)	MAINTENANCE FREQUENCEY	5 - year cycle	3 - year cycle	1 - year cycle	% SEPA intended view 2004	MAINTENANCE PRIORITY	1 - Highest priority	2 - Secondary priority	3 - Lowest priority
1. Canopy Conversion Required																			
Betty Bowen(Marshall)Park	X	X		X		X			X	X				X	40		X		
Lakeview Park	X	X	X	X		X				X			X		75		X		
Louisa Boren Park	X	X	X	X		X			X	X			X		65			X	
Riverview Playfield Park	X	X		X		X			X	X				X	30		X		
Jose Rizal Park	X		X			X			X	X			X		90		X		
2. Tree Pruning and/or Invasive Plant Removal																			
Belvedere (Admiral) Park	X			X					X	X			X		90			X	
Boren-Pike-Pine (4 Columns)	X			X	X			X	X	X		X			80			X	
DiscoveryPark/Daybrk Star	X			X	X				X	X			X		75				X
East Portal - I-90 Overlook	X				X			X				X			95				X
McCurdy Park	X			X						X		X			10		X		
Montlake Playfield	X	X		X						X			X		10		X		
Myrtle Edwards Park	X			X	X			X				X			95				X
Rainbow Point (Banner Place)	X									X		X			80				X
Sunset Hill Park	X			X					X	X			X		90			X	
Viretta Park	X			X				X		X		X			50			X	
West Seattle Golf Course	X							X		X		X			75				X
3. Slope Stability and Erosion Control Issues																			
Bagley Park Viewpoint	X	X	X	X	X				X	X			X		50			X	
Bhy Kracke Park	X	X	X	X	X			X		X			X		25		X		
Commodore Park	X	X	X	X	X				X	X			X		50			X	
Kobe Terrace Park	X		X		X			X				X			90				X
Mt. Claire-Mt. Baker		X	X	X	X				X	X		X			85				X
Roanoke Street Mini-Park	X		X	X	X			X		X		X			50			X	
Twelfth Avenue South Park	X		X	X	X				X	X		X			85				X
West Seattle Rotary Park		X	X	X	X				X	X			X		50		X		

Maintenance Practices for Long-term Care

The variation in site conditions and management requirements for DPR viewpoints prohibits the development of a 'general rule' for the fundamentals of long-term landscape maintenance: watering, pruning and weed control. However, regular monitoring will determine if routine (monthly), frequent (quarterly) or sporadic (annually) maintenance is adequate for the site. Since regular maintenance occurs in the developed parts of the park, the staff familiar with the site could integrate the monitoring of viewpoint vegetation into the maintenance schedule. Recognizing the gardener's scope of maintenance work does not include the native growth areas, their regular presence provides an opportune time to review conditions and alert supervisors to maintenance issues before they are out-of-control. Routine site observation and follow-up protocol will avert the need to periodically renovate and restore large areas at considerable cost.

Monitoring Viewpoints after Restoration

After a site has been renovated, a quarterly Field Evaluation Checklist form (template enclosed) should be completed to identify impending maintenance needs:

- tree removal
- tree pruning
- invasive weed removal
- erosion control
- planting
- mulching
- irrigation

SAMPLE TEMPLATE

Field Evaluation

Maintenance Checklist for Restored Viewpoints

√ *Check management issues requiring further review and assessment*

VEGETATION ISSUES

Trees

____ potentially hazardous tree(s)

____ trees obstructing views

____ sapling regrowth

____ other

Understory

____ invasive weeds

____ plant loss

____ additional planting may be necessary

____ other

SITE ISSUES

____ exposed soil conditions

____ erosion control needed

____ signs of slide or soil movement

____ other

HORTICULTURAL ISSUES

____ mulch needed

____ irrigation needed

____ other

Managing the Urban Forest
Since major portions of most viewpoint parks are natural areas, management is adapted to a more cyclical approach for maintenance. To maintain views once they are restored, management of the urban forest can occur within a 1, 3 or 5 year cycle depends upon its location, tree species obstructing views, level of visibility and frequency of use. Restoration planting of trees and shrubs must meet the Performance Standards for survival outlined is this plan (located in section IV. Maintenance and Management Procedures/monitoring.) However, all parks should be reviewed bi-annually for any hazard potential or public concern that might arise. One or more of the following criteria determined a park's designation for general maintenance frequency:

5-year maintenance cycle
- Requiring only routine view pruning, crown thinning or crown reduction
- Dominance of conifer species
- Requiring occasional tree removals

3-year maintenance cycle
- Requiring sapling removal i.e. Alders and Big Leaf Maple
- Moderate potential for view obstruction

1-year maintenance cycle
- Sucker regrowth from re-sprouting stumps
- High potential for view obstruction
- Intensive park use and high visibility

Vegetation Management Prescriptions for Viewpoint Study Sites
Individual management prescriptions for each park are found in the final section of this report, VI Site Evaluations and Management Recommendations. Each document is intended for field use and provides the following information:
- Location map and description
- Viewpoint Category
- Summary of Existing Conditions
- Management Prescriptions
- Maintenance of Existing Conditions
- General Maintenance Practices
- Implementation Plan